



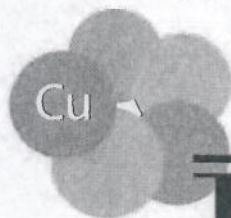
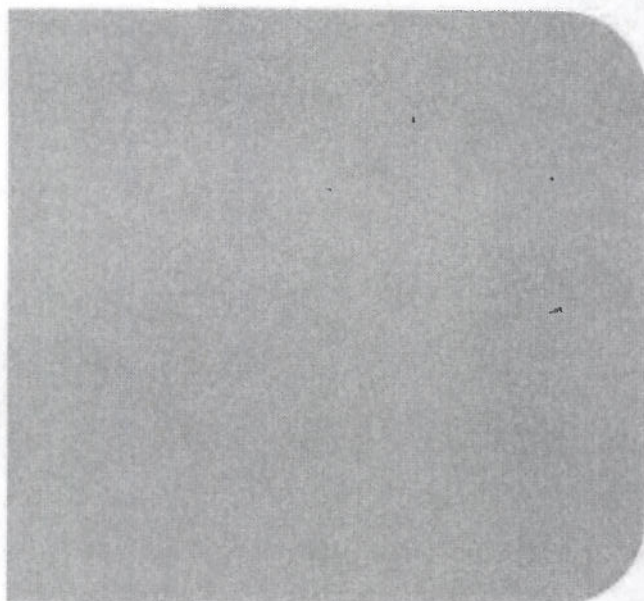
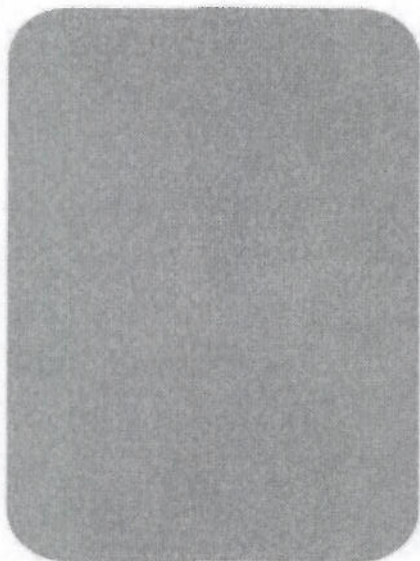
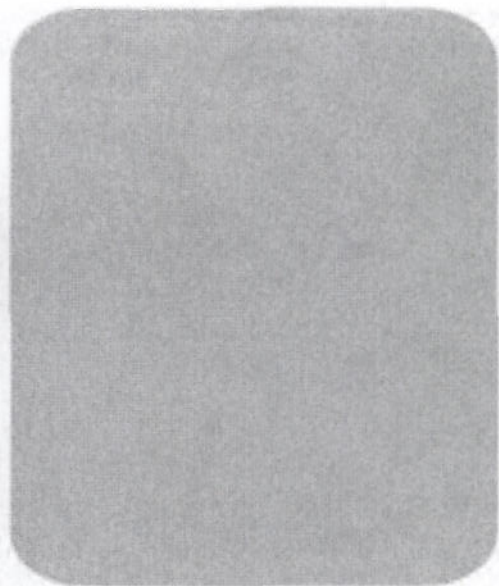
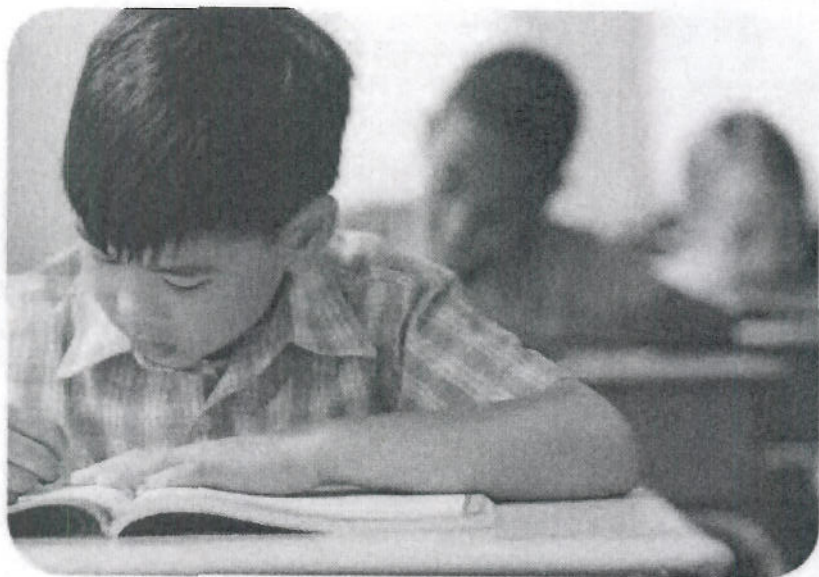
found in Antimicrobial Copper Alloys, and has different physical and chemical properties, including durability. This misidentification of the active ingredient sows confusion in the marketplace as consumers are likely to associate the product erroneously with the demonstrated performance of solid Antimicrobial Copper Alloys.

CDA appreciates and actively supports the efforts of EPA to promote a proper understanding of the role of antimicrobial products in addressing infection-causing bacteria. To do so effectively, the agency must ensure, as it has with Antimicrobial Copper Alloys, that fundamental questions of efficacy, chemistry, and durability are addressed for all solid surfaces that claim to be antibacterial. If you have any questions or would like further information, please contact CDA counsel, Joseph Green at 202.342.8849 or [JGreen@KelleyDrye.com](mailto:JGreen@KelleyDrye.com).

Respectfully submitted,

Andrew G. Kireta Sr.  
President and CEO  
Copper Development Association Inc.

cc: Steve Bradbury ([Bradbury.Steven@epa.gov](mailto:Bradbury.Steven@epa.gov))  
Bill Jordan ([Jordan.William@epa.gov](mailto:Jordan.William@epa.gov))  
Jeff Kempter ([Kempter.Carlton@epa.gov](mailto:Kempter.Carlton@epa.gov))  
Jennifer McLain ([Mclain.Jennifer@epa.gov](mailto:Mclain.Jennifer@epa.gov))  
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EOS™

PROTECTED SOLID SURFACE





## What is Copper?

Copper is required by both plants and animals for survival. It naturally occurs around the world from the United States to Australia. Copper has natural antimicrobial properties that kills a range of bacteria, fungi and viruses.

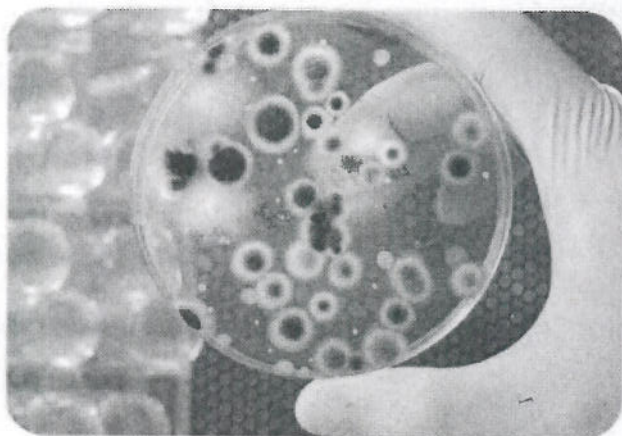
## What is EOS?

Cupron Enhanced EOS Solid Surface is a non-porous fully tested blended solid surface material with all the inherent benefits of solid surface such as integral bowls and backsplashes and seamless applications.

## What is Cupron?

Cupron, is a platform technology that utilizes the qualities of copper oxide and integrates copper oxide into textiles, latex and other polymeric products during manufacturing. These copper oxide infused polymers transform the material into which they are embedded into a material with built-in antimicrobial product protection against microorganisms such as bacteria and fungi.

Independent testing laboratories have demonstrated Cupron's efficacy in deactivating a wide variety of microorganisms . . . Cupron's proprietary copper oxide compound is natural and long lasting and is biocompatible for non-intrusive medical devices.



### **Cupron Technology has been proven to kill the following**

#### **Bacteria**

*Pseudomonas aeruginosa*  
*Enterococcus faecalis* (VRE)  
*Escherichia coli* (E. coli)  
*Staphylococcus aureus* (MRSA)

#### **Fungus**

*Tricophyton rubrum* (foot fungus)  
*Candida albicans*  
*Aspergillus niger*

#### **Virus**

HIV 1  
Influenza (H1N1) (Swine flu)  
Measles





## How EOS Solid Surface Cupron Technology Works?

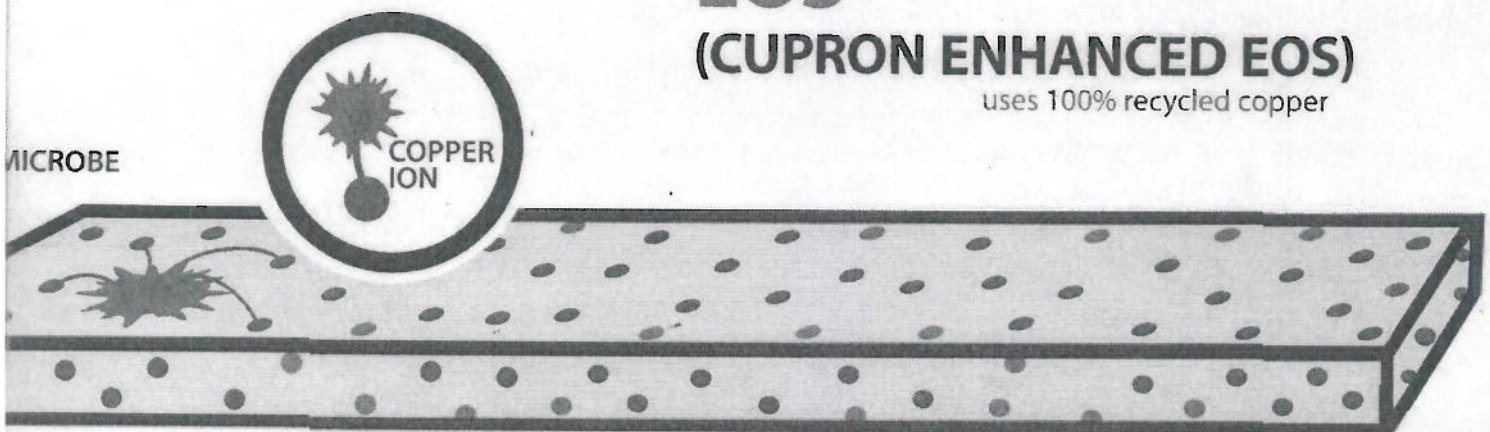
Since Egyptian times, Copper has been known as a microbial killer. While the exact reasons for copper's negative effect on microbes are not fully known, it is generally agreed that copper ions cause a series of damaging effects on bacterial, fungal and viral cells. Some of the common theories are that the copper causes leakage of potassium or glutamate through the cells outer membrane, the copper disturbs the osmotic balance, the copper binds to proteins that do not require copper and copper causes oxidative stress by generating hydrogen peroxide. By combining the extremely hygienic non-porous nature of EOS Solid Surface with the tested cutting edge technology of Cupron, EOS Solid Surface is able to offer hospitals, schools, hospitality and homeowners a defense against the rising tide of the planets' microbes. Each sheet of Cupron Enhanced EOS Solid Surface is infused with Cupron technology on all exposed surfaces. Hence, no matter where the sheet is cut, or what part of the sheet is exposed, the Cupron is there to kill the microbes that land on it.

**Cupron** is not a film or liquid chemical application. In fact, the Cupron particulate within the EOS slabs can actually be seen by the human eye. The mixture of the Cupron particulate into the EOS makes the power and effectiveness of the copper indefinite and it cannot be worn off or become less effective over time.

# EOS<sup>CU</sup>

## (CUPRON ENHANCED EOS)

uses 100% recycled copper



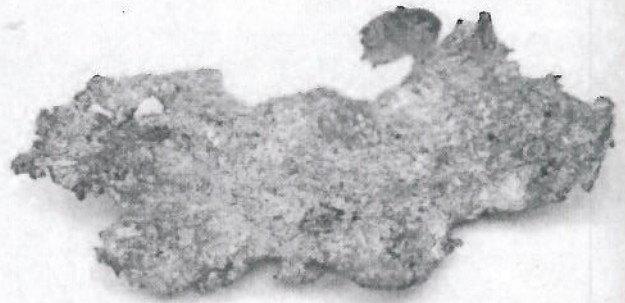
## EOS Solid Surface with Cupron



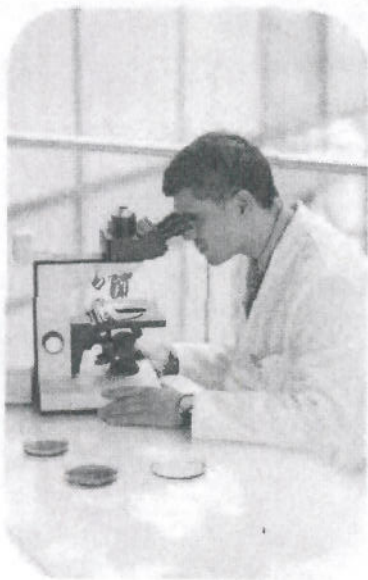
## The Safety of Copper

Cupron's active ingredient is Copper. Copper is an essential mineral that we have to ingest on a daily basis in order to survive. Humans metabolize Copper extremely efficiently and the risk of Copper toxicity is exceptionally low, especially due to dermal contact.

Ninety-five percent of the Copper in the world is in the natural form of Copper oxide which is the basis for Cupron's technology. Therefore, the technology is based on natural material. It is non-polluting regarding heavy metals in the water system due to being a non leaching technology.



There are no changes necessary to any production systems and no changes necessary for the consumer in using the product. Cupron's technology has undergone extensive independent laboratory testing and has a long history of safe use. It is registered with the US EPA for use as a fiber preservative and Cupron products can be sold and marketed in the United States by official permission of the US EPA.



## Antimicrobial Efficacy

In 2008 the US Environmental Protection Agency registered 275 copper alloys with Public Health claims. The registration means that the EPA recognizes the antimicrobial properties of copper. All Public Health claims must be supported by extensive testing under EPA protocols in an independent laboratory that adheres to OECDC (Organization for Economic Cooperation and Development) Good Laboratory Practice guidelines.

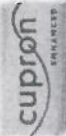
## The Rising Cost and Rate of Microbial Infections

**80%** of infectious diseases are transferred by touch (1). From Medicare's recent ruling that it will not cover **"preventable"** conditions resulting from hospital stays, including **secondary infections**, and the **incredible cost** to the public and private healthcare system of systemic healthcare acquired infections, **Cupron Enhanced EOS Solid Surface** is not only a **powerful potential disease prevention tool**, but a **sensible economic investment**.

1. Boone, S. A., & Gerba, C. P. (2007). Significance of fomites in the spread of respiratory and enteric viral disease. *Applied and Environmental Microbiology*, 73(6), 1687-96. doi: AEM.02051-06.



EOS



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HCD I I --Nashville

EOS Surfaces with CuPron Booth



# Hospital acquired infections

## The numbers are scary

- Over 99,000 deaths per year in the US
- 8 days increased ICU stay
- 14 days increased hospital stay
- \$13,973 average cost per infection
- \$40,000 increased cost per patient
- \$4.5 - \$ 5.7 billion in total cost

## Nature's Defense

### The power of copper

- Natural microbial killer
- Provides ongoing protection
- Always working in the background



## Cupron Difference

### The Cupron Difference

- Based on the recycled and natural mineral Copper
- Broad spectrum effectiveness
- Environmentally friendly
- Found in wound dressing, footwear, military berets and more

Cupron  
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AND EFFEC  
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## Cupron Difference

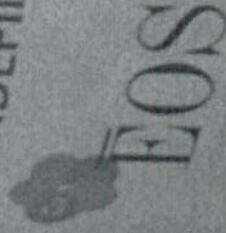
### The Cupron Difference

- Based on the recycled and natural mineral Copper
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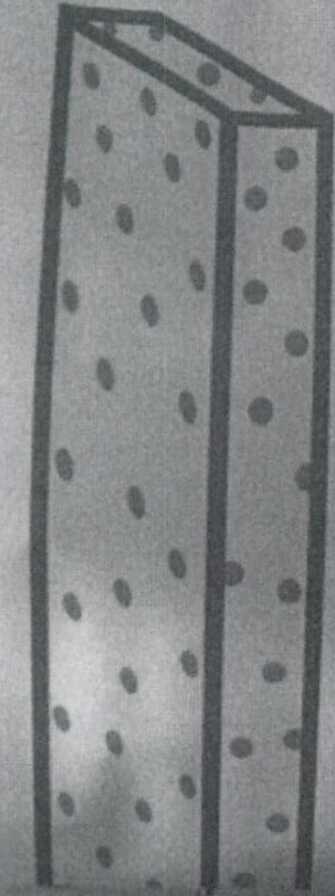
## EOS + CUPRON

### Cupron Enhanced EOS

MAKING THE POWER  
AND EFFECTIVENESS OF  
COPPER INDEFINITE





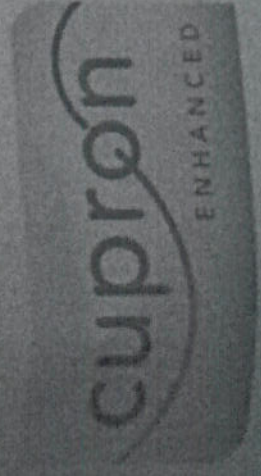


## EOS Solid Surface with Cupron



# EOS<sup>™</sup>

PROTECTED SOLID SURFACE



## the following microbes

### Bacteria

- Pseudomonas aeruginosa*
- Enterococcus faecalis* (V)
- Escherichia coli* (E. coli)
- Staphylococcus aureus*

### Fungus

- Trichophyton rubrum* (foc)
- Candida albicans*
- Aspergillus niger*

### Virus

- HIV 1
- Influenza (H1N1) (Swine f
- Measles





# Cupron Technology has been proven to kill the following microbes

## Bacteria

*Pseudomonas aeruginosa*  
*Enterococcus faecalis* (VRE)  
*Escherichia coli* (E. coli)  
*Staphylococcus aureus* (MRSA)

## Fungus

*Trichophyton rubrum* (foot fungus)  
*Candida albicans*  
*Aspergillus niger*

## Virus

HIV 1  
Influenza (H1N1) (Swine flu)  
Measles

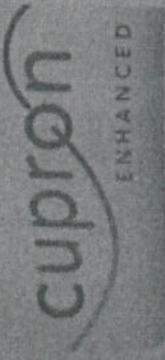




EOS

REGISTERED TRADEMARK

# Cupron: A New Application of a Proven Technology



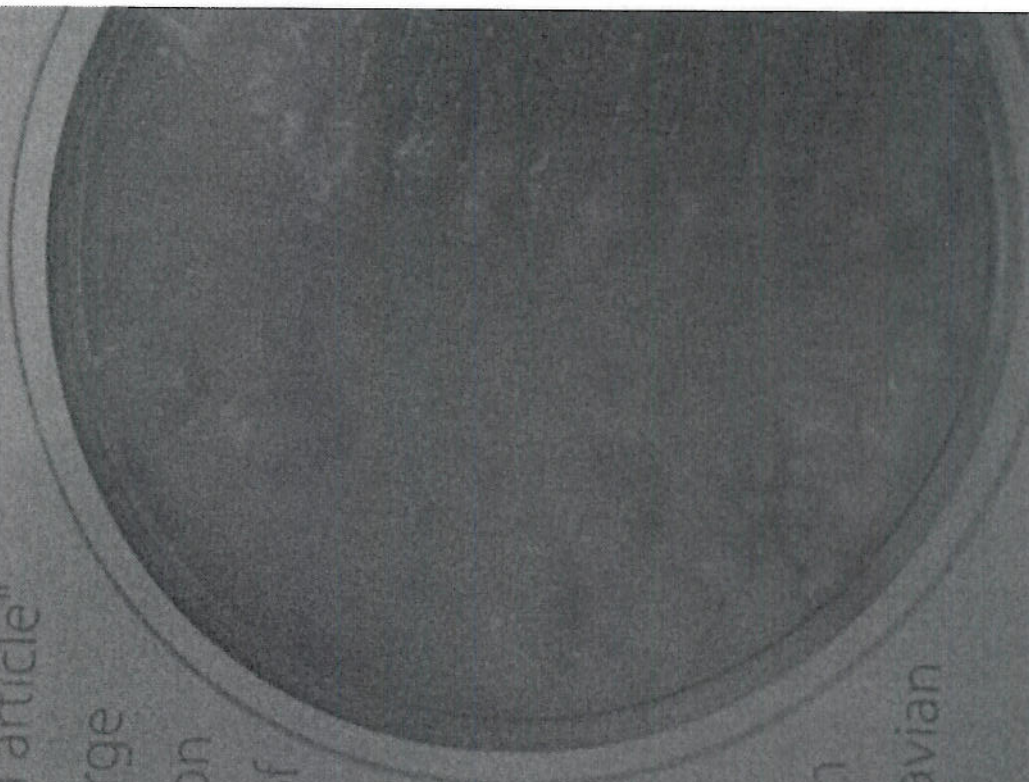
Cupron, Inc. improves people's lives by transforming ordinary products into extraordinary products. Every day Cupron focuses on implementing new ways their technology can help solve some of the world's larger health and lifestyle issues. Among other places, Cupron has been featured in The Wall Street Journal and has participated in humanitarian efforts. In October 2010, Cupron's socks were given to the Chilean miners on day 36 of them being trapped in the mines, playing a major role in protecting the miners' feet and helping enhance their well-being.

In April 2009, the US Environmental Protection Agency registered two forms of Cupron Copper Oxide to make antimicrobial "treated article" product protection and anti-odor.



participated in humanitarian efforts. In October 2010, Cupron's socks were given to the Chilean miners on day 36 of them being trapped in the mines, playing a major role in protecting the miners' feet and helping enhance their well-being.

In April 2009, the US Environmental Protection Agency registered two forms of Cupron Copper Oxide to make antimicrobial "treated article" product protection and anti-odor claims for a very large variety of materials and product types. To date, Cupron has 3 registrations with the EPA that permit the use of Cupron Technology across all non-invasive applications. Currently these registrations permit anti-odor, product protection, and anti-dustmite "public health" claims language. Cupron also has an FDA listing for Cupron Enhanced anti-odor hospital bed linens and a European CE Mark for the use of a Cupron Enhanced anti-viral mask effective against H1N1 and avian influenza viruses.





From: "Green, Joseph J." <JGreen@KelleyDrye.com>  
To: Dennis Edwards/DC/USEPA/US@EPA, Velma Noble/DC/USEPA/US@EPA, Marshall Swindell/DC/USEPA/US@EPA  
Cc: Karen Leavy/DC/USEPA/US@EPA, Joan Harrigan-Farrelly/DC/USEPA/US@EPA  
Date: 05/14/2012 03:25 PM  
Subject: FIFRA Violation - Coating Specialists, LLC

---

Dear EPA -

On behalf of the Copper Development Association (CDA), please see the information detailed below regarding significant and clear violations of FIFRA by the Coatings Specialists, LLC, which markets a variety of antimicrobial surface coating products (including the SurfaceAide 1000 and SurfaceAide XL product lines). In April 2009, CDA submitted a similar complaint about this company and the antimicrobial claims it makes for its products (see attached letter). We are not aware if any action was taken on this complaint. We urge the agency to act promptly to address these misleading claims.

The SurfaceAide products appear to be registered as "non-public health" products (for use in "treated articles") under (as best we can tell) EPA Registration Number 83135-1. A copy of the presumed registration is attached. However, as made clear by even a quick look at the company website and marketing materials, the products are being successfully marketed as "public health" products that protect the user from disease-causing bacteria and infections (such as in a high-profile deal with the New York Yankees and a number of other professional sports team, the US Army, universities, schools, and other public and private facilities).

Please see below for further details on the misleading claims that appear throughout the Coatings Specialists website. In addition, CDA is deeply concerned about erroneous comparative statements made about copper on the website.

Accordingly, we urge the agency to take strong action to address these misleading marketing activities. Coatings Specialists activities stand in dramatic contrast to the extensive stewardship efforts made by CDA for Antimicrobial Copper Alloys (Reg. No. 82012-1 to -6), which are duly registered public health antimicrobial products.

We would like to meet with the agency to provide any additional information and discuss potential next steps. Please let us know if you think we should address our concerns with other EPA or DOJ officials.

Respectfully Submitted,

---

Joseph J. Green | Kelley Drye & Warren LLP  
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3050 K Street, NW, Washington, DC 20007-5108  
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[www.kelleydrye.com](http://www.kelleydrye.com)  
Counsel to the Copper Development Association



**From:** Adam Estelle [mailto:adam.estelle@copperalliance.us]  
**Sent:** Monday, May 14, 2012 9:54 AM  
**To:** Green, Joseph J.  
**Cc:** Harold Michels  
**Subject:** FIFRA Violation - Coating Specialists, LLC

Hi Joe,

We found another coating manufacturer going over the top with claims. I have extracted some of the most clear FIFRA violations from their website below. Most can be found on this page:  
<http://www.antimicrobial.com/services/>.

"The Surface Antimicrobial System (SAS) is a comprehensive **antimicrobial service** developed by Coating Specialists that eliminates the presence of 99.9% of germs and bacteria and delivers continuous antimicrobial protection to surfaces for up to three years. Powered by the durable, high-performance antimicrobial product, SurfaceAide® 1000, SAS has been used by some of America's most prominent organizations to kill disease-causing microorganisms like H1N1Flu Virus and MRSA (methicillin-resistant Staphylococcus aureus) and inhibit the growth of microbial contaminants on surfaces ranging from dugouts at Yankee Stadium to training equipment at the U.S. Army's Fort Bliss.

- One application proactively and continually fights the growth of bacteria, mold and fungi on surfaces for 1-3 years, depending on applicator warranty.
- Kills 99.9% of germs and bacteria on surfaces, including disease-causing microorganisms such as: H1N1 Flu Virus, MRSA, Hepatitis, Rhinovirus, Rotavirus, SARS and Mumps.
- Creates an invisible antimicrobial barrier on surfaces that is environmentally friendly, non-toxic and non-sensitizing to human skin.
- Designed to minimize the presence of microbial contaminants in any industry, including: health care, education, sports, hospitality, transportation and veterinary medicine.
- Proactively and continuously prevents odor, staining and deterioration caused by bacteria, mold, mildew and algae."

There is also a lot of technically inaccurate information about copper listed on the site (<http://www.antimicrobial.com/technology/>):

	<b>Coating Specialists Non-Leaching Products</b>	<b>Leaching Antimicrobials Using Silver or Copper</b>
<b>Time</b>	Needs less time to work. It takes less time to destroy a microbe by tearing it apart and puncturing it than it does to slowly poison it.	Needs more time to work. Silver or copper take a long time to permeate the cell wall of a microbe and then slowly poison it.
<b>Microbial Adaptation</b>	Microbes can't adapt, or create "super bugs" like MRSA, to the antimicrobial force field created on surfaces and fabrics by SurfaceAide XL, FabricAide and TurfD. Creates an antimicrobial barrier	Over time microbes can adapt to poisons like silver or copper, creating "super bugs" like MRSA. Must dissipate off the

<b>Antimicrobial Efficacy</b>	that does not need to come off the surface or fabric to destroy cell wall, meaning antimicrobial coating is as strong for the millionth microbe it encounters as it was for the first.	surface or fabric each time it poisons a microbe, leaving behind less antimicrobial effectiveness for future microbial encounters.
<b>Environmentally Friendly</b>	Yes. SurfaceAide XL, FabricAide and TurfD create a non-toxic, environmentally friendly antimicrobial barrier on surfaces that does not come off the surface.	No. Silver and copper based antimicrobial products leach heavy metals into the environment.

Can you please submit this to EPA on our behalf? Our members greatly appreciate our efforts to maintain the integrity of the registration for copper alloys.

Thanks,

-Adam

**Adam A. Estelle**

Project Engineer

*Copper Development Association Inc.*

260 Madison Avenue

New York, NY 10016

Office: 212.251.7232

E-mail Address: [adam.estelle@copperalliance.us](mailto:adam.estelle@copperalliance.us)

<http://www.antimicrobialcopper.com>

<http://www.copper.org>

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The revised version you sent this morning looks fine to me. Thanks!

Philip J. Ross  
United States Environmental Protection Agency  
Office of General Counsel  
Pesticides and Toxic Substances Law Office  
202-564-5637

Carlton Kempter	OECA, OGC & Bill have concurred on the attach...	10/31/2012 08:12:50 AM
William Jordan	I am OK with the letter as edited by Phil. Thank...	10/27/2012 12:32:52 PM

----- Forwarded by Brian Joffe/DC/USEPA/US on 01/14/2015 12:26 PM -----

From: Carlton Kempter/DC/USEPA/US  
To: jgreen@kelleydrye.com, harold.michels@copperalliance.us,  
Cc: Jim Jones/DC/USEPA/US@EPA, Steven Bradbury/DC/USEPA/US@EPA, William Jordan/DC/USEPA/US@EPA, Jennifer McClain/DC/USEPA/US@EPA, Joan Harrigan-Farrelly/DC/USEPA/US@EPA, Brian Joffe/DC/USEPA/US@EPA  
Date: 11/01/2012 06:53 AM  
Subject: EPA Response to Copper Development Association's 9/17/12 letter

Mr. Green--I am pleased to forward EPA's response to the CDA's letter of September 17, 2012, following our meeting of October 23, 2012. As indicated in the letter, kindly contact Ms. Joan Harrigan-Farrelly for further communications or questions for now.

Jeff Kempter  
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Copper Development Association.011.Response to CDA Letter of 9-17-12.10-31-12.final.pdf  
----- Forwarded by Brian Joffe/DC/USEPA/US on 01/14/2015 12:26 PM -----

From: "Green, Joseph J." <JGreen@KelleyDrye.com>  
To: Carlton Kempter/DC/USEPA/US@EPA, "harold.michels@copperalliance.us" <harold.michels@copperalliance.us>  
Cc: Jim Jones/DC/USEPA/US@EPA, Steven Bradbury/DC/USEPA/US@EPA, William Jordan/DC/USEPA/US@EPA, Jennifer McClain/DC/USEPA/US@EPA, Joan Harrigan-Farrelly/DC/USEPA/US@EPA, Brian Joffe/DC/USEPA/US@EPA  
Date: 11/01/2012 09:23 AM  
Subject: RE: EPA Response to Copper Development Association's 9/17/12 letter

Jeff and EPA team -- Thanks for the response and for meeting with us last week. We will be sending a letter detailing our concerns with the competitor's product in the next couple of days.

Hope everyone weathered the "super storm" OK, and enjoyed a happy Halloween.

Regards,  
Joe

---

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202.342.8849 | [jgreen@kelleydrye.com](mailto:jgreen@kelleydrye.com)  
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Counsel to the Copper Development Association

**From:** [Kempter.Carlton@epamail.epa.gov](mailto:Kempter.Carlton@epamail.epa.gov) [mailto:[Kempter.Carlton@epamail.epa.gov](mailto:Kempter.Carlton@epamail.epa.gov)]  
**Sent:** Thursday, November 01, 2012 8:53 AM  
**To:** Green, Joseph J.; [harold.michels@copperalliance.us](mailto:harold.michels@copperalliance.us)  
**Cc:** [Jones.Jim@epamail.epa.gov](mailto:Jones.Jim@epamail.epa.gov); [Bradbury.Steven@epamail.epa.gov](mailto:Bradbury.Steven@epamail.epa.gov); [Jordan.William@epamail.epa.gov](mailto:Jordan.William@epamail.epa.gov); [McLain.Jennifer@epamail.epa.gov](mailto:McLain.Jennifer@epamail.epa.gov); [Harrigan-Farrelly.Joan@epamail.epa.gov](mailto:Harrigan-Farrelly.Joan@epamail.epa.gov); [Joffe.Brian@epamail.epa.gov](mailto:Joffe.Brian@epamail.epa.gov)  
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Jeff Kempter  
Senior Advisor  
Antimicrobials Division (7510P)  
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*(See attached file: Copper Development Association.011.Response to CDA Letter of 9-17-12.10-31-12.final.pdf)*

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----- Forwarded by Brian Joffe/DC/USEPA/US on 01/14/2015 12:26 PM -----

From: "Green, Joseph J." <JGreen@KelleyDrye.com>  
To: Joan Harrigan-Farrelly/DC/USEPA/US@EPA,  
Cc: Jim Jones/DC/USEPA/US@EPA, Steven Bradbury/DC/USEPA/US@EPA, William Jordan/DC/USEPA/US@EPA, Jennifer McClain/DC/USEPA/US@EPA, Joan Harrigan-Farrelly/DC/USEPA/US@EPA, Brian Joffe/DC/USEPA/US@EPA, Dennis Edwards/DC/USEPA/US@EPA, "herold.michels@copperalliance.us" <herold.michels@copperalliance.us>, Carlton Kempter/DC/USEPA/US@EPA, "ross.phil@epa.gov" <ross.phil@epa.gov>  
Date: 11/02/2012 10:46 AM  
Subject: Copper Development Association Request to Reconsider Registration of Antimicrobial Cupron Enhanced EOS Surface

Dear Director Harrigan-Farrelly:

As a follow up to our October 23<sup>rd</sup> meeting, attached please find a letter by which the Copper Development Association (CDA) requests the agency to reconsider the registration of Antimicrobial Cupron Enhanced EOS Surface (EPA Reg. No. 84542-7). Please let us know if you have any questions or would like additional information.

Thank you again for the meeting, which we found productive in airing our concerns about the proliferation of "treated articles" that are being marketed with unregistered public health claims. As we discussed, the Cupron/EOS product was one such "treated article" that was making wide-ranging public health claims for well over a year before obtaining the recent registration. For many reasons, detailed in the attached letter, we believe that numerous vital issues, particularly with regard to efficacy, were not addressed before the registration was issued. In addition, CDA is deeply concerned about the impact of the Cupron/EOS product on the extensive stewardship activities CDA has conducted, at EPA's behest, over the last several years – as well as the questionable track record of Cupron with respect to stewardship of its own products.

We look forward to further discussions with you and the agency.

Please do not hesitate to contact me if you need anything else.

Respectfully submitted,

Joseph J. Green  
Counsel to the Copper Development Association



Joseph J. Green | Kelley Drye & Warren LLP  
Washington Harbour, Suite 400  
3050 K Street, NW, Washington, DC 20007-5108  
202.342.8849 | [jgreen@kelleydrye.com](mailto:jgreen@kelleydrye.com)  
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CDA Request to Reconsider Registration of Antimicrobial Cupron Enhanced EOS Surface.pdf  
----- Forwarded by Brian Joffe/DC/USEPA/US on 01/14/2015 12:26 PM -----

From: Joan Harrigan-Farrelly/DC/USEPA/US  
To: "Green, Joseph J." <[JGreen@KelleyDrye.com](mailto:JGreen@KelleyDrye.com)>,  
Cc: Brian Joffe/DC/USEPA/US@EPA, Carlton Kempter/DC/USEPA/US@EPA, Dennis Edwards/DC/USEPA/US@EPA, "harold.michels@copperalliance.us" <[harold.michels@copperalliance.us](mailto:harold.michels@copperalliance.us)>, Jennifer McInain/DC/USEPA/US@EPA, 'ross.phil' <[ross.phil@epa.gov](mailto:ross.phil@epa.gov)> <[ross.phil@epa.gov](mailto:ross.phil@epa.gov)>, William Jordan/DC/USEPA/US@EPA,>  
Date: 11/05/2012 06:52 AM  
Subject: Re: Copper Development Association Request to Reconsider Registration of Antimicrobial Cupron Enhanced EOS Surface

Dear Attorney Green:

This is to acknowledge receipt of your email and the information provided. We will review the information and respond as appropriate.

Thanks



Joan

Joan Harrigan Farrelly  
US Environmental Protection Agency  
Director, Antimicrobials Division  
Office of Pesticide Programs  
1200 Pennsylvania Ave. N.W. Mailcode 7510P  
Washington, DC 20460

Physical Address  
One Potomac Yard  
2777 Crystal Dr.  
Arlington, VA 22202  
Phone: 703-603-8914

"Green, Joseph J." Dear Director Harrigan-Farrelly: As a follow up t... 11/02/2012 12:46:13 PM

----- Forwarded by Brian Joffe/DC/USEPA/US on 01/14/2015 12:26 PM -----

From: "Green, Joseph J." <JGreen@KelleyDrye.com>  
To: Joan Harrigan-Farrelly/DC/USEPA/US@EPA,  
Cc: Jim Jones/DC/USEPA/US@EPA, Steven Bradbury/DC/USEPA/US@EPA, William  
Jordan/DC/USEPA/US@EPA, Jennifer McInain/DC/USEPA/US@EPA, Joan  
Harrigan-Farrelly/DC/USEPA/US@EPA, Brian Joffe/DC/USEPA/US@EPA, Dennis  
Edwards/DC/USEPA/US@EPA, "harold.michels@copperalliance.us"  
<harold.michels@copperalliance.us>, Carlton Kempter/DC/USEPA/US@EPA,  
"ross.phil@epa.gov" <ross.phil@epa.gov>  
Date: 11/12/2012 10:48 AM  
Subject: RE: Copper Development Association Request to Reconsider Registration of Antimicrobial Cupron  
Enhanced EOS Surface

Dear Director Harrigan-Farrelly:

As a follow up to our request to reconsider the registration of the Antimicrobial Cupron Enhanced EOS Surface (84542-7), we are sending a picture (attached and below) taken of the EOS Surfaces booth at the Healthcare Design Show in Chicago, November 4-6, 2012.

As you can see, the company violates several basic tenets of FIFRA and their EPA registration by claiming:

1. "keeping us safer" and "protective surface" – implying broad protection of human health from infection
2. "always cleaning" – a statement that, by implying that cleaning is not necessary, contradicts the critical message required by the registration that the surfaces must continue to be cleaned routinely,
3. "killing bacteria" – does not qualify the broad-spectrum reference to "bacteria" and specify the tested organisms

These violations are consistent with Copper Development Association concerns about the registration of this product and the adverse implications for proper product stewardship.

We appreciate your attention to this matter.

Please let me know if you have any questions or would like further information.

Regards,  
Joe

---

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[www.kelleydrye.com](http://www.kelleydrye.com)  
Counsel to the Copper Development Association

**From:** Green, Joseph J.

**Sent:** Friday, November 02, 2012 12:44 PM

**To:** 'Harrigan-Farrelly.Joan@epamail.epa.gov'

**Cc:** 'Jones.Jim@epamail.epa.gov'; 'Bradbury.Steven@epamail.epa.gov';

'Jordan.William@epamail.epa.gov'; 'McLain.Jennifer@epamail.epa.gov';

'Harrigan-Farrelly.Joan@epamail.epa.gov'; 'Joffe.Brian@epamail.epa.gov'; 'Dennis Edwards

(Edwards.Dennis@epamail.epa.gov)'; 'harold.michels@copperalliance.us';

'Kempter.Carlton@epamail.epa.gov'; 'ross.phil@epa.gov'

**Subject:** Copper Development Association Request to Reconsider Registration of Antimicrobial Cupron Enhanced EOS Surface

Dear Director Harrigan-Farrelly:

As a follow up to our October 23<sup>rd</sup> meeting, attached please find a letter by which the Copper Development Association (CDA) requests the agency to reconsider the registration of Antimicrobial Cupron Enhanced EOS Surface (EPA Reg. No. 84542-7). Please let us know if you have any questions or would like additional information.

Thank you again for the meeting, which we found productive in airing our concerns about the proliferation of "treated articles" that are being marketed with unregistered public health claims. As we discussed, the Cupron/EOS product was one such "treated article" that was making wide-ranging public health claims for well over a year before obtaining the recent registration. For many reasons, detailed in the attached letter, we believe that numerous vital issues, particularly with regard to efficacy, were not addressed before the registration was issued. In addition, CDA is deeply concerned about the impact of the Cupron/EOS product on the extensive stewardship activities CDA has conducted, at EPA's behest, over the last several years – as well as the questionable track record of Cupron with respect to stewardship of its own products.

We look forward to further discussions with you and the agency.



Please do not hesitate to contact me if you need anything else.

Respectfully submitted,

Joseph J. Green  
Counsel to the Copper Development Association

---

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CDA Request to Reconsider Registration of Antimicrobial Cupron Enhanced ....pdf



EOS booth at HCD 11\_6\_12.jpg.jpg

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To: "Green, Joseph J." <JGreen@KelleyDrye.com>,  
Cc: Brian Joffe/DC/USEPA/US@EPA, Carlton Kempter/DC/USEPA/US@EPA, Dennis Edwards/DC/USEPA/US@EPA, "harold.michels@copperalliance.us" <harold.michels@copperalliance.us>, Jennifer McLain/DC/USEPA/US@EPA, Jim Jones/DC/USEPA/US@EPA, "ross.phil@epa.gov" <ross.phil@epa.gov>, Steven Bradbury/DC/USEPA/US@EPA, William Jordan/DC/USEPA/US@EPA  
Date: 11/13/2012 09:51 AM  
Subject: RE: Copper Development Association Request to Reconsider Registration of Antimicrobial Cupron Enhanced EOS Surface

Dear Mr. Green:

Thank you for the message. We will review and follow-up.

Joan

Joan Harrigan Farrelly  
US Environmental Protection Agency  
Director, Antimicrobials Division



Office of Pesticide Programs  
1200 Pennsylvania Ave. N.W. Mailcode 7510P  
Washington, DC 20460

Physical Address  
One Potomac Yard  
2777 Crystal Dr.  
Arlington, VA 22202  
Phone: 703-603-8914

"Green, Joseph J." Dear Director Harrigan-Farrelly: As a follow up t... 11/12/2012 12:48:38 PM

----- Forwarded by Brian Joffe/DC/USEPA/US on 01/14/2015 12:26 PM -----

From: "Green, Joseph J." <JGreen@KelleyDrye.com>  
To: Joan Harrigan-Farrelly/DC/USEPA/US@EPA,  
Cc: Brian Joffe/DC/USEPA/US@EPA, Carlton Kempter/DC/USEPA/US@EPA, Dennis  
Edwards/DC/USEPA/US@EPA, "harold.michels@copperalliance.us"  
<harold.michels@copperalliance.us>, Jennifer McLain/DC/USEPA/US@EPA, Jim  
Jones/DC/USEPA/US@EPA, "ross.phil@epa.gov" <ross.phil@epa.gov>, Steven  
Bradbury/DC/USEPA/US@EPA, William Jordan/DC/USEPA/US@EPA  
Date: 11/13/2012 09:57 AM  
Subject: RE: Copper Development Association Request to Reconsider Registration of Antimicrobial Cupron  
Enhanced EOS Surface

Thanks Joan.

Wanted to clarify that the picture was from the Healthcare Design Show in Phoenix (not Chicago),  
November 4-6, 2012. A similar booth was at the show in Chicago in October. Sorry for the confusion.

Regards,  
Joe

---

Joseph J. Green | Kelley Drye & Warren LLP  
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**From:** Harrigan-Farrelly.Joan@epamail.epa.gov [mailto:Harrigan-Farrelly.Joan@epamail.epa.gov]  
**Sent:** Tuesday, November 13, 2012 11:52 AM  
**To:** Green, Joseph J.  
**Cc:** Joffe.Brian@epamail.epa.gov; Kempter.Carlton@epamail.epa.gov; Edwards.Dennis@epamail.epa.gov;  
'harold.michels@copperalliance.us'; McLain.Jennifer@epamail.epa.gov; Jones.Jim@epamail.epa.gov;  
'ross.phil@epa.gov'; Bradbury.Steven@epamail.epa.gov; Jordan.William@epamail.epa.gov  
**Subject:** RE: Copper Development Association Request to Reconsider Registration of Antimicrobial  
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Date: 11/12/2012 12:48 PM  
Subject: RE: Copper Development Association Request to Reconsider Registration of Antimicrobial Cupron Enhanced EOS Surface

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1. "keeping us safer" and "protective surface" – implying broad protection of human health from infection
2. "always cleaning" – a statement that, by implying that cleaning is not necessary, contradicts the critical message required by the registration that the surfaces must continue to be cleaned routinely,
3. "killing bacteria" – does not qualify the broad-spectrum reference to "bacteria" and specify the tested organisms



These violations are consistent with Copper Development Association concerns about the registration of this product and the adverse implications for proper product stewardship.

We appreciate your attention to this matter.

Please let me know if you have any questions or would like further information.

Regards,

Joe

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[www.kelleydrye.com](http://www.kelleydrye.com)  
Counsel to the Copper Development Association

**From:** Green, Joseph J.

**Sent:** Friday, November 02, 2012 12:44 PM

**To:** 'Harrigan-Farrelly.Joan@epamail.epa.gov'

**Cc:** 'Jones.Jim@epamail.epa.gov'; 'Bradbury.Steven@epamail.epa.gov';

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'Kempter.Carlton@epamail.epa.gov'; 'ross.phil@epa.gov'

**Subject:** Copper Development Association Request to Reconsider Registration of Antimicrobial Cupron Enhanced EOS Surface

Dear Director Harrigan-Farrelly:

As a follow up to our October 23<sup>rd</sup> meeting, attached please find a letter by which the Copper Development Association (CDA) requests the agency to reconsider the registration of Antimicrobial Cupron Enhanced EOS Surface (EPA Reg. No. 84542-7). Please let us know if you have any questions or would like additional information.

Thank you again for the meeting, which we found productive in airing our concerns about the proliferation of "treated articles" that are being marketed with unregistered public health claims. As we discussed, the Cupron/EOS product was one such "treated article" that was making wide-ranging public health claims for well over a year before obtaining the recent registration. For many reasons, detailed in the attached letter, we believe that numerous vital issues, particularly with regard to efficacy, were not addressed before the registration was issued. In addition, CDA is deeply concerned about the impact of the Cupron/EOS product on the extensive stewardship activities CDA has conducted, at EPA's behest, over the last several years – as well as the questionable track record of Cupron with respect to stewardship of its own products.

We look forward to further discussions with you and the agency.

Please do not hesitate to contact me if you need anything else.

Respectfully submitted,

Joseph J. Green

Counsel to the Copper Development Association

---

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(866) 411-4EPA (4372). The TDD number is (866) 489-4900.

\*\*\*\*\* ATTACHMENT NOT DELIVERED  
\*\*\*\*\*





Copper Development  
Association Inc.  
Copper Alliance

May 28, 2013

Susan Lewis, Director  
Antimicrobials Division  
Office of Pesticide Programs  
U.S. Environmental Protection Agency  
Ariel Rios Building  
1200 Pennsylvania Avenue, N.W.  
Mail Code: 7510P  
Washington, D.C. 20460

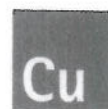
**Re: Submission of Data Demonstrating Inadequate Efficacy of  
"Antimicrobial Cupron Enhanced EOS Surface" (EPA Reg. No.  
84542-7)**

Dear Director Lewis:

As a follow up to our November 2, 2012, Request to Reconsider the registration of "Antimicrobial Cupron Enhanced EOS Surface" ("Cupron/EOS Surface") (attached), the Copper Development Association ("CDA") is submitting data showing that the product does not achieve the efficacy testing requirements of the EPA-approved protocols. We understand based on discussions with Deputy Director Jennifer McLain that the agency is preparing a response to CDA's request for reconsideration of the Cupron/EOS Surface registration, and hope that the enclosed test results help inform that response.

The enclosed test data support CDA's concerns (detailed in our November 2, 2012 letter) regarding the antibacterial performance of the Cupron/EOS product, and raise fundamental questions about the viability of the registration. As we have noted previously, these issues must be addressed before the agency should allow the continued marketing and sale of this "public health" product intended to fight infection-causing bacteria in the healthcare environment and other settings.

The data show that, remarkably, the Cupron/EOS Surface failed the basic two hour test for 7 of 10 samples, demonstrating less than the required 99.9% bacterial kill rate. One batch of five samples achieved an average of 99.7% bacteria reductions, and the second batch of five samples only averaged a 96.7% kill rate over the two hour test period. The results of the ten



samples tested are summarized in the chart below.<sup>1</sup> To pass the test, the material must demonstrate greater than 99.9% kill within two hours.

Color	Carrier	Survivors/Carrier	Percent Reduction
<b>Beige</b>	1	$1.0 \times 10^3$	> 99.9
	2	$2.7 \times 10^5$	93.2
	3	$8.6 \times 10^4$	97.8
	4	$2.4 \times 10^3$	> 99.9
	5	$2.16 \times 10^3$	> 99.9
<b>Grey</b>	1	$8.8 \times 10^4$	97.8
	2	$8.4 \times 10^4$	98.0
	3	$1.5 \times 10^5$	96.2
	4	$1.4 \times 10^5$	96.5
	5	$1.8 \times 10^5$	95.5

Given these results, we urge EPA to reconsider the registration of the Cupron/EOS Surface product. As detailed in our prior letter, it would be arbitrary and capricious to allow such a product to remain registered despite the significant unanswered questions about its long-term durability and antibacterial performance. These test data underscore the substantial concerns and uncertainties that remain about this product.

In addition, CDA calls to the agency's attention the fact that the Cupron/EOS Surface is improperly labeled by identifying the active ingredient as "copper" when, in fact, the active ingredient is cuprous oxide. Cuprous oxide is a distinct chemical from solid copper as

<sup>1</sup> The two 5-sample lots were coded "beige" and "grey."